

What is claimed is:

1. An improved feeding nipple, comprising:  
a substantially solid nipple including one or more ducts formed  
therethrough for conveying fluids through said nipple, said nipple  
being radially compressible so as to prevent passage of fluids  
through said one or more ducts when so compressed.
2. The nipple of Claim 1, wherein said one or more ducts include one or  
more of round, slit, "S"-shaped and "Y"-shaped ducts.
3. The nipple of Claim 1, wherein the nipple has a Shore A hardness of  
less than about 10.
4. The nipple of Claim 1, wherein the nipple includes at least three  
ducts.
5. The nipple of Claim 1, wherein the nipple includes at least five ducts.
6. The nipple of Claim 1, wherein the nipple has a unitary nipple portion  
and mounting portion, said mounting portion being adapted for use in attaching  
said nipple.
7. The nipple of Claim 1, wherein the nipple has a separate nipple  
portion connected to a mounting portion.
8. The nipple of Claim 6, wherein said mounting portion is formed of a  
material of the same Shore A hardness as that of the nipple portion.
9. The nipple of Claim 6, wherein said mounting portion is formed of a  
material having a relatively higher Shore A hardness than that of the nipple  
portion.

10. The nipple of Claim 1, wherein said nipple portion includes a nipple end and a body portion.

11. The nipple of Claim 10, wherein said body portion has an air vent formed therethrough which permits ambient air to enter a chamber formed  
5 within the nipple.

12. The nipple of Claim 10, wherein the nipple has a vent that includes a horizontal passageway in communication with atmosphere and a vertical passageway in communication at a first end to the horizontal passageway and at a second end to an inner chamber of the nipple.

10 13. The nipple of Claim 2, wherein said ducts are offset radially with respect to a central axis of said nipple.

14. A nipple, comprising:

a substantially solid nipple portion adapted to be inserted into the mouth of a user and being formed of a material having a Shore A  
15 hardness of less than about 10; and  
at least one duct for conveying fluid through said nipple.

15. A nipple for baby feeding, comprising:

a substantially solid nipple including one or more ducts formed therethrough for conveying fluids through said nipple and having  
20 a flow restrictive feature, said flow restrictive feature preventing passage of fluids through said one or more ducts.

16. A nursing nipple, comprising:

a substantially solid nipple formed of a material having a Shore A hardness of less than about 10; and  
25 a container attachment portion formed unitary with said nipple portion.

17. A nursing nipple, comprising:

a substantially solid elongated nipple portion formed of a material having a Shore A hardness of less than about 10 and sized and shaped to be insertable into the mouth of a nursing infant, said elongated portion having a proximal end, with at least one duct extending through said solid nipple portion from said proximal end to a nipple base portion, said base portion having a radial flange extending outwardly therefrom; and

a container attachment portion connected to said nipple base portion, said container attachment portion being a generally cylindrical ring and having a first end connected to said radial flange and a second end, said second end including an attachment device formed thereon, said attachment device sized and shaped so as to be removably attachable to a container.

18. A nipple, comprising:

a substantially solid nipple formed of a material having a Shore A hardness of less than about 10 and including an extending portion sized and shaped to be insertable into the mouth of a user, said extending portion having one or more ducts therethrough for conveying fluids, and a base portion; and

a container attachment portion attached to said base portion, said container attachment portion being generally cylindrical and having a first end with a flange, said flange extending inwardly from said first end and including a plurality of openings formed therethrough, said base portion being enmeshed with said flange through said openings in manufacture, said container portion including means for attachment to a container.

19. A feeding nipple for use with a container, comprising:  
a substantially solid nipple portion formed of a material having a Shore A hardness of less than about 10 and including one or more ducts for conveying fluids through said nipple portion; and  
5 a mounting portion, said mounting portion including a land for providing a seal with a container and an attachment feature for securing said feeding nipple to the container.
20. The feeding nipple of Claim 19, wherein said one or more ducts have a length greater than a width thereof.
- 10 21. The feeding nipple of Claim 19, wherein said one or more ducts are collapsible during use to substantially prevent the passage of fluid therethrough.
22. The feeding nipple of Claim 19, wherein said nipple portion is elongated and sized and shaped so as to be insertable into an infant mouth.
- 15 23. The feeding nipple of Claim 22, wherein said nipple further includes a skirt portion including outer and inner surfaces that extends radially outwardly from a distal end of said nipple portion, and which forms a hollow dome with said mounting portion.
- 20 24. The feeding nipple of Claim 19, wherein said mounting portion includes a lip inboard of said land and an inner wall, and wherein said lip, said land and said inner wall form a channel which is adapted to engage with and seal with a rim of a container.
25. The feeding nipple of Claim 19, wherein said attachment feature is a threaded feature.
- 25 26. The feeding nipple of Claim 25, wherein said threaded feature is a single thread formed on an inner wall of said mounting portion.

27. The feeding nipple of Claim 19, including a rigid ring positioned about an outer periphery of said mounting portion.

28. The feeding nipple of Claim 27, wherein said nipple is one of a variety of different nipples, and further including a ring having an indicia  
5 associated therewith which is indicative of a feature of a nipple.

29. The feeding nipple of Claim 27, where said indicia are part of a color-coding.

30. An improved feeding nipple, comprising:  
a substantially solid nipple portion adapted for mouth-insertion and  
10 formed of a material having a first Shore A hardness of less than about 10, with at least one fluid conveying duct formed therethrough; and  
a container attachment portion formed of a material having a second Shore A hardness, said second Shore A hardness being greater  
15 than said first Shore A hardness; said container portion and said solid nipple portion being formed in a unitary piece.

31. The nipple of Claim 30, wherein said solid nipple portion has a Shore A hardness of less than about 5.

32. The improved nipple of Claim 1, wherein said solid nipple portion  
20 has a Shore A hardness of less than about 5.

33. The nipple of Claim 14, wherein said solid nipple portion has a Shore A hardness of less than about 5.

34. The nipple of Claim 15, wherein said solid nipple portion has a Shore A hardness of less than about 5.

25 35. The nipple of Claim 16, wherein said solid nipple portion has a Shore A hardness of less than about 5.

36. The nipple of Claim 17, wherein said solid nipple portion has a Shore A hardness of less than about 5.

37. The nipple of Claim 18, wherein said solid nipple portion has a Shore A hardness of less than about 5.

5           38. The nipple of Claim 19, wherein said solid nipple portion has a Shore A hardness of less than about 5.

39. An improved feeding nipple wherein the improvement comprises:  
an elongated nipple part adapted to be insertable into a user's mouth,  
said elongated part having at least one conduit formed  
10           therethrough for conveying fluid from a distal end to a proximal  
end where fluid exits the nipple into the user's mouth, said  
elongated nipple part being made of a soft material capable of  
substantially closing said conduit(s) in use under at least one of  
(a) an extension force stretching said elongated part longitudinal to  
15           thereby constrict said conduit(s) or  
(b) a radially inwardly compressive force to thereby pinch said  
conduit(s).

40. The improved nipple of Claim 39, wherein said elongated nipple part material has a Shore A hardness less than about 10.

20           41. The improved nipple of Claim 39, wherein said elongated nipple part material has a Shore A hardness less than about 5.

42. The improved nipple of Claim 39, wherein said elongated nipple part has at least three conduits.

43. The improved nipple of Claim 39, wherein said improved nipple further includes a mounting portion having an attachment device associated therewith capable of affixing the nipple to a container, and a transition portion between said mounting portion and said elongated nipple portion, said transition  
5 portion forming a hollow dome with said mounting portion, said distal end of said elongated nipple portion communicating with said dome.

44. The improved nipple of Claim 43, wherein said elongated nipple part, transition portion and mounting portion are formed as one integral piece.

45. The improved nipple of Claim 44, wherein said mounting portion is  
10 formed of a material that is more rigid than said soft material.

46. The improved nipple of Claim 45, wherein said mounting portion has a Shore A hardness in the range of about 20 to about 90, and said elongated nipple has a Shore A hardness less than about 5.

47. The improved nipple of Claim 44, wherein said mounting portion has  
15 a sufficient rigidity to maintain its shape in use under an extension force applied to said elongated nipple part by the user's mouth.

48. The improved nipple of Claim 45, wherein said mounting portion and said elongated part are co-molded together.

49. The improved nipple of Claim 43, further including a rigidifying  
20 attachment ring, said ring surrounding a collar segment of said mounting portion to thereby substantially restrict radially outward movement of said mounting portion in the area of said collar segment.

50. The improved nipple of Claim 49, wherein said ring is located around the exterior of said collar segment.

51. The improved nipple of Claim 50, wherein the improvement further comprises a plurality of nipples having at least one differing feature, and a plurality of rings having indicia indicative of a particular different feature.

52. The improved nipple of Claim 51, wherein said indicia comprises  
5 color-coding.

53. The nipple of Claim 30, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.

54. The improved nipple of Claim 1, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.

10 55. The nipple of Claim 14, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.

56. The nipple of Claim 15, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.

15 57. The nipple of Claim 16, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.

58. The nipple of Claim 17, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.

59. The nipple of Claim 18, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.

20 60. The nipple of Claim 19, wherein said solid nipple portion has a Shore 00 hardness in the range of about 20 to about 45.



61. A method of making an improved feeding nipple, comprising:  
providing a first material to yield a substantially solid nipple portion  
adapted for mouth-insertion having a first Shore A hardness of  
less than about 20;  
5 providing a second material to yield a container attachment portion  
having a second Shore A hardness, said second Shore A  
hardness being greater than said first Shore A hardness;  
forming said container portion and said solid nipple portion in a  
unitary piece; and  
10 forming at least one fluid conveying duct through said nipple portion.

62. The method of Claim 61 further comprising the step of providing a  
mold within which said nipple portion and said attachment portion are formed,  
and comprising the further step of providing said mold with a surface texture at  
least in the area of where said attachment portion is formed which yields a  
15 friction reducing finish about an interior of said attachment portion.

63. The method of Claim 62 further comprising the step of forming screw  
threads about said interior of said attachment portion, and wherein said surface  
texture of said mold is made by sandblasting said mold to yield a matte finish.

64. An improved method of making an attachment portion for attaching a  
20 nipple to a container, where the attachment portion is formed by molding,  
wherein the improved method comprises the steps of:  
providing a mold; and  
forming a texture at least in the area of the mold where said  
attachment portion is formed which yields a friction reducing  
25 finish about an interior of said attachment portion when molded  
therein.

65. The method of Claim 64 wherein said texture is formed by  
sandblasting said mold to yield a matte finish.

66. The method of Claim 65 further including the step of forming screw threads about said interior of said attachment portion.

67. The improved method of Claim 66 wherein said attachment portion is formed of an elastomer.

5           68. The improved method of Claim 67 wherein said attachment portion is formed of silicone rubber.

69. An improved nipple for feeding comprising:  
an elongated nipple part adapted to be inserted into a user's mouth  
having an opening formed in said nipple part through which liquid  
10           is conveyed to the user;  
an attachment part adapted to be attached to a liquid-containing  
container, said attachment part defining a longitudinal vertical  
axis with said container;  
a transition part between said elongated nipple part and said  
15           attachment part; and  
said elongated nipple part being radially offset relative to said central  
axis.

70. A nursing nipple, comprising:  
a substantially solid nipple formed of a material having a Shore 00  
20           hardness of less than about 45;  
a container attachment portion formed unitary with said nipple  
portion; and  
an air vent formed in said container attachment portion.

71. A nursing nipple, comprising:

a substantially solid elongated nipple portion formed of a material  
having a Shore 00 hardness of less than about 45 and sized and  
shaped to be insertable into the mouth of a nursing infant, said  
5 elongated portion having a proximal end, with at least one duct  
extending through said solid nipple portion;

a transition portion defining an internal volume; and

a container attachment portion, said container attachment portion  
being a generally cylindrical ring and having an internal shoulder  
10 adapted to engage a rim of a container mouth, said shoulder  
having a channel formed therein which communicates with said  
volume at one end and which communicates with ambient air at  
another end to thereby form a vent.

72. An improved nipple for feeding having at least one fluid conveying

15 duct extending through a part adapted to be inserted into the user's mouth,  
wherein the improvement comprises:

a one-way valve in said duct.